

D-59 Minor (Small) Storm and Surface Water Capital Improvement Projects

Adopted Description and Scope

This ongoing program is for minor (small) improvements to Bellevue's surface water system to resolve deficiencies, improve efficiencies, or resolve maintenance problems, often in conjunction with other Bellevue programs such as the Transportation overlay program. Examples of projects include pipeline outfall improvements at Meydenbauer Bay; small stormwater pipe extensions to resolve drainage problems; and modifications of catch basins in concert with street projects. Projects are prioritized based on criteria including public safety/property damage, maintenance frequency, flooding history, operator safety, environmental risk, coordination with other city or development activity, and level of service impact.

PROJECT NEED: System Renewal and Replacement

Adopted Budget (includes inflation)

D-59	2015	2016	2017	2018	2019	2020	2021
	\$163,000	\$1,028,609	\$170,000	\$174,000	\$177,000	\$181,000	\$185,000

Note: Adopted 2016 budget was \$167,000. Budget increased by \$861,609 on 4/20/2015, to reflect 2016 DOE Water Quality Grant for work at the Downtown Park Regional Water Quality Facilities Project.

Historical Expenditures

D-59	2009	2010	2011	2012	2013	2014	2015
	\$22,000	\$65,000	\$138,000	\$176,000	\$89,000	\$282,000	\$93,000

Average expenditures per year (2009-2015) = \$ 124,000

Proposed Changes

Scope: No changes are proposed.

Schedule: No change is proposed.

Cost: An increase of \$50,000 / year (\$2015) is proposed, to better handle emergent projects, based on recent experience.

Proposed Budget (includes Inflation)

D-59	2015	2016	2017	2018	2019	2020	2021	2022	2023
Adopted	\$163,000	\$1,028,609	\$170,000	\$174,000	\$177,000	\$181,000	\$185,000	\$0	\$0
Proposed	\$163,000	\$1,028,609	\$222,000	\$227,000	\$231,000	\$237,000	\$242,000	\$247,000	\$252,000
Difference	\$0	\$0	\$52,000	\$53,000	\$54,000	\$56,000	\$57,000	\$247,000	\$252,000

ESC Policy Input Requested: Should budget be increased as proposed?

D-64 Storm Water System Conveyance Infrastructure Rehabilitation

Adopted Description and Scope

This ongoing program repairs defective storm drainage pipelines, culverts and ditches identified in the Utility's condition assessment program or other means. Projects are prioritized based on the severity of deterioration, the risk and consequence of failure, and coordination with planned street improvement projects. As the system ages, costs are expected to increase. The Utilities' Asset Management Program is evaluating when system replacement will require significant increases to the budget.

PROJECT NEED: System Renewal and Replacement

Adopted Budget (includes inflation)

D-64	2015	2016	2017	2018	2019	2020	2021
	\$937,000	\$963,000	\$1,031,000	\$1,104,000	\$1,184,000	\$1,266,000	\$1,356,000

Historical Expenditures

D-64	2009	2010	2011	2012	2013	2014	2015
	\$954,000	\$991,000	\$1,208,000	\$740,000	\$478,000	\$742,000	\$1,029,000

Average expenditures per year (2009-2015) = \$ 877,000

Proposed Changes

Scope: No changes proposed. The adopted budget includes increases 5%/year over inflation beginning in 2017 to resolve an anticipated increase in number of defects that will need to be fixed. More defects will be found because the Utility is:

- Researching the age and type of unknown stormwater pipe (to help us know where failure probability is higher);
- Visually assessed the condition of stormwater culverts, and
- Significantly increased the amount of stormwater system video inspected in 2015-16 for D-107 (inspecting critical pipes for asset management).

Schedule: No change.

Cost: No change, except to add new program years. Continues 5% increase/year over inflation.

Proposed Budget (includes inflation)

D-64	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total	\$937,000	\$ 963,000	\$1,031,000	\$1,104,000	\$1,184,000	\$1,266,000	\$1,356,000	\$1,452,000	\$1,555,000

Policy Input Requested: none

D-81 Fish Passage Improvement Program

Adopted Description and Scope

This ongoing program provides funding to remove fish passage barriers such as impassable culverts, debris jams, or accumulated sediment, allowing access to critical spawning and rearing habitat for salmon populations. Typical projects include culvert replacement or modification, debris removal, or installation of logs and boulders to improve access at low stream flows. Grant money is pursued to supplement Bellevue's investment whenever possible. Projects planned for this CIP window are on Kelsey Creek at 140th Ave NE; on Yarrow West Tributary; on Newport Creek; at Mercer/Alcove Creek, and on Yarrow East Tributary.

PROJECT NEED: Resource & Habitat Management

Adopted Budget (includes inflation)

D-81	2015	2016	2017	2018	2019	2020	2021
	\$752,000	\$441,000	\$421,000	\$413,000	\$196,000	\$366,000	\$23,000

Note: Adopted 2016 budget was \$201,000. Budget increased by 240K on 4/20/2015, from savings in D-103, to fund fish passage improvement at Alcove Creek.

Historical Expenditures

D-81	2009	2010	2011	2012	2013	2014	2015
	\$96,000	\$206,000	\$905,000	\$63,000	\$1,191,000	\$456,000	\$877,000

Average expenditures per year (2009-2015) = \$542,000

Proposed Changes

Scope: Projects in this CIP window are identified, including new program years.

Schedule: Project schedules are shown below. Alcove Creek mitigation is required in 2018.

Cost: Project cost estimates have been updated. Mitigation for Alcove Creek is more expensive than previously anticipated. Total proposed change in cost through 2021 is \$373,000 increase. New projects have been added in later program years.

Proposed Budget (Values in table shown in 2015 dollars. Total line includes inflation)

D-81	2015	2016	2017	2018	2019	2020	2021	2022	2023
Adopted	\$752,000	\$441,000	\$421,000	\$413,000	\$196,000	\$366,000	\$23,000		
Proposed	\$752,000	\$441,000	\$421,000	\$461,000	\$174,000	\$500,000	\$236,000	\$607,000	\$507,000
Difference	\$0	\$0	\$0	\$48,000	(\$22,000)	\$134,000	\$213,000	\$607,000	\$507,000

Detailed Budget Development: (Total includes inflation; project costs in 2015\$)

D-81	2015	2016	2017	2018	2019	2020	2021	2022	2023
Kelsey / 140 th Ave NE Culvert Improvements				\$20,000	\$155,000	\$365,000	\$5000	\$2000	\$2000
Kelsey Culvert Mods @ Lk. Hills Connector and Kelsey Farm	\$10,000	\$12,000							
Kelsey / Glendale Fish Passage	\$2,000								
Yarrow Tributary Culvert Removal	\$566,000								
Kelsey Creek Glendale Golf Course Fish passage monitoring	\$26,000	\$21,000	\$19,000	\$19,000					
Newport Creek Fish Passage	\$275,000								
Alcove Creek Culvert Modifications	\$22,000	\$240,000							
2830 107 th Ave NE Fish Passage	\$3,000	\$50,000	\$150,000	\$370,000	\$5000	\$5000	\$3000	\$3000	\$3000
Newport Creek Fish Passage Monitoring	\$7,000	\$13,000	\$13,000	\$11,000					
Yarrow Creek, W Trib Culvert Monitoring	\$6,000	\$12,000	\$11,000	\$11,000					
Future Project #1						\$50,000	\$150,000	\$370,000	\$5,000
Future Project #2							\$50,000	\$150,000	\$370,000
Future Project #3									\$50,000
Total Uninflated (2015\$)	\$917,000	\$348,000	\$193,000	\$431,000	\$160,000	\$450,000	\$208,000	\$525,000	\$430,000
Proposed Budget (including Inflation)	\$752,000	\$441,000	\$421,000	\$461,000	\$174,000	\$500,000	\$236,000	\$607,000	\$507,000

Policy Input Requested: Should project budget be increased as proposed?

D-86 Stream Channel Modification Program

Adopted Description and Scope

This ongoing program resolves unstable stream sections that reduce salmon spawning or rearing habitat or increase Bellevue Utilities maintenance requirements. Stream stability problems include stream sections with excessive erosion or sediment deposition. This program also improves habitat complexity by planting coniferous trees to reduce willow mono-culture or invasive weed species. Stabilizing the stream channel consists primarily of placing large woody debris and boulders in the stream channel, and re-vegetating stream banks, commonly called bioengineering. Projects planned in this CIP window include projects on Lower Kelsey Creek, at the Coal Creek Channel, and erosion control in the Sunset Creek ravine.

PROJECT NEED: Resource & Habitat Management

Adopted Budget (includes inflation)

D-86	2015	2016	2017	2018	2019	2020	2021
	\$85,000	\$231,000	\$338,000	\$675,000	\$531,000	\$427,000	\$33,000

Historical Expenditures

D-86	2009	2010	2011	2012	2013	2014	2015
	\$548,000	\$529,000	\$695,000	\$261,000	\$412,000	\$667,000	\$104,000

Average expenditures per year (2009-2015) = \$ 459,000

Proposed Changes

Scope: Projects in this CIP window are identified, including new program years.

Schedule: Improved project scheduling shown.

Cost: Improved project estimates reflected in table. New projects were added in the new program years.

Proposed Budget *(Values in table shown in 2015 dollars. Total line includes inflation)*

D-86	2015	2016	2017	2018	2019	2020	2021	2022	2023
Miscellaneous Stream Channel Mods & Revegetation	\$9,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000
Yarrow Trib/ 102nd Ave NE Monitoring	\$10,000	\$9,000							
East/Richards Creek S. of Kamber	\$100,000	\$14,000	\$11,000	\$11,000	\$11,000				
Kelsey Creek Knotweed Control	\$5,000								
East/Richards Creek Culv. Repl Monitoring	\$2,000								
Kelsey Creek GCC & 8 th bank stabilization	\$30,000	\$100,000	\$220,000	\$10,000	\$5,000	\$5,000	\$5,000	\$5,000	
Lower Kelsey Channel Improvements			\$50,000	\$150,000	\$300,000	\$10,000	\$5,000	\$5,000	\$5,000
Coal Creek Channel at Sediment Pond				\$50,000	\$120,000	\$200,000	\$10,000	\$5,000	\$5,000
Sunset Creek Ravine Erosion Control				\$50,000	\$50,000	\$100,000	\$240,000	\$10,000	\$5,000
Lower Newport Crk. Habitat Improvements							\$50,000	\$100,000	\$250,000
Coal creek Pkwy Upstream Habitat							\$50,000	\$70,000	\$120,000
Future Stream Channel Project								\$50,000	\$70,000
Total (2015\$)	\$156,000	\$136,000	\$294,000	\$284,000	\$499,000	\$328,000	\$373,000	\$258,000	\$468,000
Proposed Budget (inflated)	\$85,000	\$231,000	\$338,000	\$303,000	\$544,000	\$365,000	\$423,000	\$298,000	\$552,000

Policy Input Requested: None.

D-94 Flood Control Program

Adopted Description and Scope

This ongoing program constructs improvements to reduce or eliminate flooding caused by insufficient public drainage system capacity. Projects involve enlarging pipes or culverts to convey more stormwater, re-routing drainage to pipes with more capacity, adding detention or infiltration facilities, or other runoff control strategies. Candidate sites are wherever levels of service (LOS) for flood protection are not met. The following sites have projects in progress or have been identified for future improvements, and are presented in priority order. They will be prioritized for implementation with any others that become apparent as a result of storm or system analysis:

1. Valley Creek / NE 21st Flood control (in progress)
2. Post construction monitoring on Coal Creek Upper Reach, Lower Coal Creek Sed. Pond, Sunset / SE 30th St Flood Control
3. Factoria Boulevard Conveyance Improvements
4. Meydenbauer Basin / CBD Conveyance Improvements
5. Wolverine Drive Flood Control Project
6. North Sammamish Flood Improvements
7. Overlake Overflow / NE 20th Street Improvements
8. Sunset Creek / Garden Brook
9. 156th Ave SE & SE 4th St. Storm Drainage Improvements
10. Phantom / Larson Lake Channel Regrade

The SE Newport Way Culvert Replacement Project previously on this list has been deleted. King County completed repairs at the site prior to Bellevue's annexation of the area. Kelsey Creek/SE 7th Street Flood Control was also removed from the list. Field investigation suggests that enhanced maintenance at that site may result in significant improvement. If further channel or culvert work is needed, it will be considered for addition to the project list during a future CIP update.

PROJECT NEED: Flood Hazard

Adopted Budget (includes inflation)

D-94	2015	2016	2017	2018	2019	2020	2021
	\$1,113,000	\$725,000	\$1,248,000	\$1,519,000	\$1,914,000	\$939,000	\$651,000

Note: This program is funded in part by KCFZD sub-regional funding. Adopted budget presumed \$550,000/year KCFZD revenue.

Historical Expenditures

D-94	2009	2010	2011	2012	2013	2014	2015
	\$930,000	\$1,082,000	\$363,000	\$493,000	\$981,000	\$265,000	\$310,000

Average expenditures per year (2009-2015) = \$ 632,000

Proposed Changes

Scope: Projects in-progress include a Valley Creek/NE 21st Flood Control Project and Factoria Boulevard Storm Conveyance Improvements as well as post construction monitoring for the following completed projects: Coal Creek Upper Reach, Lower Coal Creek Sediment Pond, and Sunset/SE 30th St Flood Control

Projects in Factoria and Meydenbauer basin were refined based on 2015 flood studies. The Wolverine Drive Storm Drain Improvements project has been deleted (Corrective action by O&M addressed the flooding problem.)

Projects must be listed to qualify for KCFZD programmed funding. List of queued projects including those in progress are:

1. Valley Creek / NE 21st Flood Control Project
2. Factoria Boulevard Conveyance Capacity Improvements,
3. Meydenbauer Basin / CBD Conveyance Capacity Improvements
4. Upper Kelsey Creek Stream Channel Improvements
5. Richards / Factoria Blvd. Conveyance Improvements
6. Meydenbauer Basin Improvements near NE 8th & 100th Ave NE and NE 4th & 102nd Ave NE. Other locations beyond this CIP window.
7. Bellevue Way/108th Ave NE Capacity Improvements
8. North Sammamish Flood Improvements
9. Overlake Overflow / NE 20th Street flood control
10. Sunset Creek/Garden Brook Storm Drainage Improvements
11. 156th Ave SE & SE 4th St. Storm Drainage Improvements
12. Phantom Lake / Larson Lake Channel re-grade

Schedule: Projects in this CIP window are now detailed. The Valley Creek / NE 21st project has been delayed into this CIP window due to property negotiations. Other project schedules were adjusted to balance workload within the window.

Revenue: KCFZD annual contributions are expected to increase from \$550,000/year (assumed in adopted budget) to approximately \$600,000/year in 2017 and beyond.

Cost: Costs have been updated based on revised engineering estimates; total change through 2021 based on new costs and revised schedules is (\$204,000). The Valley Creek / NE 21st project costs were increased due to the potential for property condemnation. Costs for Meydenbauer (NE 8th & 100th) decreased based on flood study; Richards/Factoria increased based on flood study. Costs in later years are planning level estimates. Costs will be refined during predesign phase of each project.

Proposed Budget (Include inflation)

D-94	2015	2016	2017	2018	2019	2020	2021	2022	2023
Adopted	\$1,113,000	\$725,000	\$1,248,000	\$1,519,000	\$1,914,000	\$939,000	\$0	\$0	\$0
Proposed	\$1,113,000	\$725,000	\$1,519,000	\$3,133,000	\$244,000	\$375,000	\$796,000	\$1,024,000	\$1,478,000
Difference	\$0	\$0	\$271,000	\$1,614,000	(\$1,670,000)	(\$564,000)	\$796,000	\$1,024,000	\$0

Detailed Budget Development (*totals include inflation; project costs in 2015\$*)

D-94	2015	2016	2017	2018	2019	2020	2021	2022	2023
Miscellaneous Flood Control Projects	\$2,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Valley/NE 21st Street Flood Control & Monitoring	\$22,000	\$180,000	\$157,000	\$875,000	\$10,000	\$7,000	\$7,000		
Lower Coal Creek Sed. Pond Monitoring	\$6,000								
Sunset/SE 30 th Flood Control Monitoring	\$30,000	\$22,000	\$20,000	\$19,000	\$4,000				
Coal Creek Projects Monitoring	\$3,000	\$2000							
Upper Kelsey Creek Stream Channel Impr.	\$20,000	\$81,000	\$60,000	\$5,000	\$2,000	\$2,000	\$2,000	\$2,000	
Meydenbauer / CBD Conv. Study	\$123,000								
Richards / Factoria Blvd. Convey Imp.	\$135,000	\$656,000	\$1,010,000						
Meydenbauer Basin: NE 8 th & 100 th Ave NE		\$200,000	\$200,000	\$1,970,000					
Meydenbauer Basin: NE 4 th & 102 nd Ave NE									\$25,000
Bellevue Way/108th Ave NE Capacity Imp				\$10,000	\$55,000				
N. Sammamish Flood improvements				\$50,000	\$150,000	\$100,000	\$450,000	\$10,000	\$5,000
Overlake Overflow / NE 20 th St Predesign						\$150,000	\$120,000	\$615,000	
Sunset Creek/Garden Brook						\$75,000	\$120,000		
156 th Ave SE & SE 4 th St Storm Drain Imp								\$205,000	\$1,070,000
Phantom/Larson Lake Channel re-grade								\$50,000	\$150,000
Total (2015\$)	\$341,000	\$1,144,000	\$1,450,000	\$2,932,000	\$224,000	\$337,000	\$702,000	\$885,000	\$1,253,000
Proposed Budget (infl.)	\$1,113,000	\$725,000	\$1,519,000	\$3,133,000	\$244,000	\$375,000	\$796,000	\$1,024,000	\$1,478,000

Policy Input Requested: none

D-103 Replace Coal Creek Parkway Culvert at Coal Creek

Adopted Description and Scope

This project will replace a 96-inch diameter, 110 foot long corrugated metal pipe built in the 1980s that carries Coal Creek beneath Coal Creek Parkway. The current culvert impedes fish passage; resource agencies will likely require the new design to be designed for fish passage. The metal pipe will be replaced with a 39' wide box culvert that will also accommodate a new walking path under the roadway adjacent to the stream. Site monitoring for ten years after the project completion is included in the budget.

PROJECT NEED: System Renewal and Replacement

Adopted Budget (includes inflation)

D-103	2015	2016	2017	2018	2019	2020	2021
	\$10,000	(\$235,000)	\$5,000	\$6,000	\$6,000	\$6,000	\$6,000

Note: Adopted 2016 budget was \$5,000, but project had an accumulated savings because it was completed under budget. 2016 Budget decreased by 240K on 4/20/2015, transferred to D-81 to fund fish passage improvement at Alcove Creek.

Proposed Changes

Scope: No change.

Schedule: Construction is complete. Monitoring for this project for permit compliance is will be complete in 2019.

Cost: Project is complete except for monitoring. Construction was completed \$235,000 under budget.
Monitoring costs now better estimated (higher per year but for fewer years).

Proposed Budget (inflation included)

D-103	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total	\$10,000	(\$235,000)	\$15,000	\$12,000	\$12,000	\$0	\$0	\$0	\$0

Policy Input Requested: None

D-104-B Stream Restoration for Mobility and Infrastructure

Adopted Description and Scope

This ongoing program is for stormwater improvements associated with the Mobility and Infrastructure Initiative (which seeks to address high priority mobility and infrastructure needs in Downtown Bellevue and in the Bel-Red Corridor). These funds are to restore streams for recreation and environmental health through the Bel-Red corridor, and to encourage redevelopment of the area. These funds will be allocated to specific stormwater-related projects pending further Council direction. Two projects are proposed for implementation in 2014-2016: Channel Restoration pre-design studies on the West Tributary downstream of the West Trib. Regional Pond, and Native Plant Restoration at the West Tributary Regional Pond. The projects will need to be constructed to coordinate with Sound Transit wetland and stream mitigation, and 124th Phase 1 project, respectively.

PROJECT NEED: Resource and Habitat Management

Adopted Budget (includes inflation)

D-104	2015	2016	2017	2018	2019	2020	2021
<i>Expenditures</i>	\$422,000	\$21,000	\$11,000	\$11,000	\$11,000	\$11,000	-

Proposed Changes

Scope:

The adopted budget reflects the planned annual contribution to the fund. Information below details projects proposed to be funded from the collected revenue.

- (A) Sound Transit East Link Program will improve 350 LF of existing stream channel downstream of the West Trib Regional Detention facility by installing wood, establishing terraced 1-2 year floodplains, and establishing native plants as part of their required mitigation. They will re-establish the channel elevation to assure appropriate functioning of the regional detention facility gate immediately upstream. The project is an identified element of the BelRed subarea vision and provides direct benefits to aquatic habitat. It improves operation of the regional facility, allowing fish passage at low flows while maintaining the level of open water wetland upstream of the gate.
- (B) Reduce invasive non-native plants and restore 3 acres of complex wetland native plant community within the West Tributary regional detention facility. The project will improve aquatic and riparian habitat, improve water quality and temperature, and will improve open space views for BelRed residents and employees. Identified as an “early action” project for the BelRed subarea, to be completed prior to increased residential and commercial development. Development in the BelRed Corridor has already begun. For the Spring District, this includes 312 units for Phase 1 Security Properties (started) and 279 units for Phase II (currently in review). In addition, 13,000 square feet of retail and commercial development, as well as a 3-story office building and brew pub (currently in review).
- (C) West Trib. Daylighting: Restore open stream channel on publicly owned property. Initiate pre-design geotechnical study to determine groundwater risks and constraints.

Schedule:

Project (A): Should be constructed in 2017-18. The scope and timing of this project is linked with the Sound Transit wetland mitigation project that is immediately adjacent.

Project (B): Planned for construct in 2016.

Project (C): Planned for initiation in 2015-16, prior to Sound Transit construction and site constraints. Phase II design will follow, with construction of Phase II anticipated in 2020.

Cost: Project (A): Sound Transit is responsible for the cost of restoring the stream channel.
 Project (B): Cost is based on a predesign study completed in 2012.
 Project (C): Based on preliminary engineering estimates for groundwater contamination monitoring and pre-design for feasibility and coordination with Parks. Pre-design will develop construction estimate.

Proposed Expenses Budget

D-104 B	2015	2016	2017	2018	2019	2020	2021	2022	2023
Adopted	\$422,000	\$21,000	\$11,000	\$11,000	\$11,000	\$11,000	\$0		
Proposed	\$422,000	\$21,000	\$110,000	\$112,000	\$5,000	\$6,000	\$6,000	\$0	\$0
Difference	\$0	\$0	\$99,000	\$101,000	(\$6,000)	(\$5,000)	\$6,000	\$0	\$0

Detailed Budget (Expense) Development: *(Total proposed expenses includes inflation; projects in 2015\$)*

D-104 B	2015	2016	2017	2018	2019	2020	2021	2022	2023
(A) West Tributary Channel Restoration	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(B) West Tributary Regional Pond Native Plant Restoration	\$65,000	\$281,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$0	\$0
(C) West Trib Stream Channel Daylighting/Restoration	\$25,000	\$25,000	\$100,000	\$100,000	\$0	\$0	\$0	\$0	\$0
Total (2015\$)	\$90,000	\$306,000	\$105,000	\$105,000	\$5,000	\$5,000	\$5,000	\$5,000	\$0
Proposed Expenses Budget (inflated)	\$422,000	\$21,000	\$110,000	\$112,000	\$5,000	\$6,000	\$6,000	\$0	\$0

Policy Input Requested:

None. This project is council-mandated to achieve the Bel-Red Corridor Vision.

D-105 Replace NE 8th Street Culvert at Kelsey Creek

Adopted Description and Scope

This project will replace the existing 10' wide by 7' tall, 110-foot long corrugated metal culvert built in the early 1980s that carries Kelsey Creek beneath NE 8th Street. To meet flood and fish passage requirements, the culvert will be replaced with a bridge which spans the creek channel, or a three-sided concrete box culvert with an approximate 15 foot span. The design will be determined by permit requirements.

PROJECT NEED: System Renewal and Replacement

Adopted Budget (includes inflation)

D-105	2015	2016	2017	2018	2019	2020	2021
	\$110,000	\$226,000	\$231,000	\$1,178,000	\$1,785,000	\$11,000	\$6,000

Proposed Changes

Scope: No change proposed

Schedule: Project is being accelerated to complete construction in a single year to minimize disruption and save costs. The construction schedule will be coordinated with water main replacement work in (W-103).

Cost: Project cost has been increased \$332,000 based on refined Engineers Estimate from predesign.

Proposed Budget (includes inflation)

D-105	2015	2016	2017	2018	2019	2020	2021	2022	2023
Adopted	\$110,000	\$226,000	\$231,000	\$1,178,000	\$1,785,000	\$11,000	\$6,000		
Proposed	\$110,000	\$226,000	\$733,000	\$2,778,000	\$16,000	\$8,000	\$8,000	\$8,000	\$8,000
Difference	\$0	\$0	\$502,000	\$1,600,000	(\$1,769,000)	(\$3,000)	\$2,000	\$8,000	\$0

Policy Input Requested: Should project budget be increased as proposed?

D-106 Lower Coal Creek Flood Hazard Reduction Phase 1

Adopted Description and Scope

This project will design and construct project(s) to reduce flooding from the Newport Shores reach of Coal Creek, located between I-405 and Lake Washington. A preliminary engineering study to identify and assess alternatives is underway, to establish how best to reduce flooding during storm events. The project budget includes one or more of the following: increased storage capacity at the I-405 regional pond, replacement of the five existing culverts downstream of the pond, targeted stream bank erosion protection, and improvements to the local storm drainage network. The schedule has been revised to reflect design in 2015-16; permitting in 2016-17, and construction of improvements between 2018 and 2020.

PROJECT NEED: Flood Hazard

Adopted Budget (matches KCFZD Capital Program)

D-106	2015	2016	2017	2018	2019	2020	2021
	\$300,000	\$600,000	\$200,000	\$2,177,000	\$2,176,000	\$2,176,000	-

Proposed Changes

Scope: The preliminary engineering study identified a preferred alternative with two components. The first is to replace each of the five culverts in Newport Shores with new structures to improve their hydraulic capacity and decrease their chance of becoming obstructed with fallen trees and debris. The second is to revise neighborhood drainage by adding two or three new stormwater outfalls to Lake Washington. Currently, neighborhood streets drain into Coal Creek, which is difficult or impossible during flood events when the creek level is extremely high. The improved drainage system would take advantage of the lower elevation of Lake Washington, so streets could drain even when the creek is flooding. Design is underway for the five culverts and the best locations for potential additional stormwater outfalls are being determined, prior to beginning design of new outfalls

Schedule: The schedule has been revised to reflect:

- Design of all proposed improvements in 2015-18;
- Permitting for all improvements in 2016-18;
- Construction of all improvements between 2017 and 2019.

The schedule and budget reflect the negotiated Service Agreement with KCFZD.

Cost: Minor changes in the project cost reflect negotiated service agreement with KCFZD. This project is fully funded by the KCFZD.

Proposed Budget (Matches KDFZD allocation)

D-106	2015	2016	2017	2018	2019	2020	2021	2022	2023
Adopted	\$300,000	\$600,000	\$200,000	\$2,177,000	\$2,176,000	\$2,176,000	\$0		
Proposed	\$300,000	\$600,000	\$2,515,000	\$2,475,000	\$2,311,000	\$10,000	\$10,000		
Difference	\$0	\$0	\$2,315,000	\$298,000	\$135,000	(\$2,166,000)	\$10,000	\$0	\$0

Policy Input Requested: None

D- 107 Stormwater Pipeline Video Inspection Enhancement

Adopted Description and Scope

This project will video-inspect the most critical 20% of stormwater pipes to assess their condition over a five year period. Pipes to be inspected will be selected based on their likelihood and consequence of failure (risk). The video condition assessment results will be used to help evaluate the overall stormwater pipeline condition so that short- and long-term renewal and replacement needs can be more accurately estimated. The project will also be used to evaluate how much of the stormwater system should be video-inspected each year on an ongoing basis. The project funds four years of contracted services, plus start up time in the first year. It will video-inspect 10-15 miles in 2015, 25 miles each in 2016, 2017, and 2018, and 10-15 miles in the first half of 2019.

PROJECT NEED: System Renewal and Replacement

Adopted Budget (includes inflation)

D-107	2015	2016	2017	2018	2019	2020	2021
	\$299,000	\$614,000	\$626,000	\$638,000	\$326,000	-	-

Proposed Changes

Scope: No changes proposed, other than to correct percent of system inspected from 20% to 25% (program will video inspect 100 miles of the 411 miles of known public storm pipe.)

Schedule: No changes proposed.

Cost: No changes proposed

Proposed Budget (includes inflation)

D-107	2015	2016	2017	2018	2019	2020	2021	2022	2023
	\$299,000	\$614,000	\$626,000	\$638,000	\$326,000	\$0	\$0	\$0	\$0

Policy Input Requested:

None.

D-108 Sound Transit East Link Corridor within Bellevue City Limits

Adopted Description and Scope

PROJECT NEED: System Renewal and Replacement

Adopted Budget (includes inflation)

D-108	2015	2016	2017	2018	2019	2020	2021
	\$3,616,000	-	-	-	-	-	-

Note: Adopted 2015 budget was \$3,145,000. Budget increased by \$471,000 to reflect agreement (inflation).

Proposed Changes

Scope: No change.

Schedule: No change.

Cost: No change proposed. The total cost of this project is \$3,616,000.

D-NEW-1 Storm Water Quality Retrofit in Kelsey Creek

Proposed Description and Scope

This project will design and install three water quality retrofit improvements using biofiltration and rain garden techniques within city rights-of-way, where it will improve water quality from street runoff to Kelsey Creek.

The Storm and Surface Water System Plan reported that over 38% of the city was developed without water quality treatment of stormwater. When stormwater management regulations were first established, they focused largely on flood control. Recent studies have demonstrated that roadway stormwater runoff kills Coho salmon. In 2014 there was 100% mortality of hatchery Coho salmon transplanted to Kelsey Creek. Studies show that filtering stormwater runoff through bio-retention soil mixes will clean the stormwater sufficiently to result in salmon survival.

This project will improve stormwater quality, and improve fish survival. It lays the foundation for an ongoing program that Bellevue could use to meet water quality retrofit requirements. It aligns with many resource agency goals for water quality retrofit and low impact development BMPs, and positions Bellevue to be successful with grant applications from those agencies.

PROPOSED SCHEDULE: Select location and design 3 projects in 2017 for 2018 and 2019 installation.

PROJECT NEED: System Renewal and Replacement

Proposed Budget (includes inflation)

Each 'modular wetland' designed to treat 800'x25' of impervious area is estimated to cost \$110,000 (2015\$) for design, permitting and construction.

D-NEW-1	2015	2016	2017	2018	2019	2020	2021	2022	2023
	0	0	\$90,000	\$125,000	\$128,000	\$0	\$0	\$0	\$0

Cost beyond 2023: None. If successful, the program could be continued

Total Project Cost: \$330,000 (2015\$)

Policy Input Requested:

Should this project be added to the Storm Capital Investment Program?

D-NEW-3-M Land Acquisition for North End Yard

Proposed Description and Scope

This project provides budget to acquire land in the north end of Bellevue for siting of a municipal maintenance facility (North End Yard site). Site acquisition would be based on the results of analysis done under separate CIP proposal (D-NEW-2-M). Funding for development of this yard is not included in this project.

Currently, Utilities and other operating departments based at the BSC spend an estimated 20-25% of their day traveling to and from work sites and the Eastgate Yard (address) to haul debris and spoils, to decant, and to access supplies such as crushed rock. A maintenance yard in the north end would reduce travel times and improve productivity by improving the proximity of materials and to decant facilities and a location to dump spoils. The goal is to increase productivity through reduced travel times and efficiencies.

PROPOSED SCHEDULE: Site acquisition is anticipated in 2019-20

PROJECT NEED: Capacity for Growth

Proposed Budget (includes inflation)

W-NEW-5-M	2015	2016	2017	2018	2019	2020	2021	2022	2023
	0	0	0	0	\$3,333,000	\$3,333,000	0	0	0

Cost beyond 2023: None. Property development costs are not included in this project.

Total Project Cost: Estimated cost is \$20,000,000. Cost would be spread equally across three utility funds (Water, Sewer, and Storm)

Policy Input Requested:

Should this project be added to the Storm Capital Investment Program? (And Sewer and Water)